



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/023,107 | 12/17/2001 | Francesco M. Brani | CH 000030 | 2433 |

24737 7590 01/13/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

| |
|----------|
| EXAMINER |
|----------|

NGUYEN, HIEP

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2816

DATE MAILED: 01/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,107

Applicant(s)

BRANI, FRANCESCO M.

Examiner

Hiep Nguyen

Art Unit

2816

NW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11,12,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11,12,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/23/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This is responsive to the amendment filed on 10-27-03. Applicant's arguments with respect to 112, first paragraph have been carefully considered but they are not deemed to be persuasive. Thus the claims 11, 12, 17 and 18 remained rejected under 35 U.S.C. 112, first paragraph.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 11, 12, 17 and 18 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to describe the phased generator (9) of figure 1 of the present application as to how it can "affect adaptive control of a plurality of phases of said plurality of stages by indicating that corresponding edges of the plurality of phases have terminated" as recited in claims 11 and 17. The blank box (9) does not contain any component/circuit proving that the above performance can be done. Moreover, the specification does not disclose what are inside the blank box (9).

Claims 12 and 18 are also rejected under 35 U.S.C. 112, first paragraph because of the technical deficiencies of claims 11 and 17. Correction and/or clarification is required.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 11, 12, 17 and 18 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Correction and /or clarification is required.

In claims 11 and 17 the recitations "to **affect adaptive** control of a plurality of phases..." is indefinite because it is not clear as to how the phase generator can be effectively adapted to

control a plurality of phase". Figure 1 of the present application does not show any possibility of the phase generator (9) for generating and controlling of the plurality of phases.

Claims 12 and 18 are also rejected under 35 U.S.C. 112, second paragraph because of the technical deficiencies of claims 11 and 17. Correction and/or clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11, 12, 17 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Rao (US Pat. 6,359,947).

Regarding claims 11, 12, 17 and 18, Figures 2, 3, 5A and 5E of Rao show a driver circuit comprising: a charge pump (145); a phase generator (142,144, 146, 150) that generates a plurality of phases shown in figure 5E wherein, a plurality of phases of said plurality of stages by indicating that corresponding edges of the plurality of phases has terminated, and wherein, said control further comprises commencing a first phase (CKL3) only upon termination of the second phase (CKL2). The third phase is (CKL1). The limitation "a display device" has not been given patentable weights because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11, 12, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liu (US Pat. 6,160,723) in view of Rao (US Pat. 6,359,947).

Regarding claims 11 and 12, figure 3 of Liu shows a driver circuit comprising:

a phase generator (306, 308) that generates a plurality of phases (BCKL1, BCKL2) from clock signals (CLK, CLK/); and

a charge pump including a plurality of stages (356, 358) wherein signals from each of said plurality of phases are fed back to said phase generator. Figure 3 of Liu does not show that the phase generator controls a plurality of phases of said plurality of stages by indicating that corresponding edges of the plurality of phases has terminated, and wherein, said control further comprises commencing a first phase only upon termination of the second phase. Figures 2, 3, 5A and 5E of Rao show a phase generator (142, 144, 146, 150) that generates a plurality of phases shown in figure 5E wherein, the first phase is (CKL3) and the second phase is (CKL2), for driving a charge pump circuit having high capacitive load (col. 8, lines 33-56). Therefore, it would have been obvious to one of ordinary skill in the art to replace the phase generator of Liu with a phase generator taught by RAO for being able to drive a charge pump circuit having high capacitive load. The third phase is (CKL1).

Regarding claims 17 and 18, figure 3 of Liu shows “ a driver circuit comprising:

a phase generator (306, 308) that generates a plurality of phases (BCKL1, BCKL2) from clock signals (CLK, CLK/); and

a charge pump including a plurality of stages (356, 358) wherein signals from each of said plurality of phases are fed back to said phase generator. Figure 3 of Liu does not show that

the phase generator controls a plurality of phases of said plurality of stages by indicating that corresponding edges of the plurality of phases has terminated, and wherein, said control further comprises commencing a first phase only upon termination of the second phase. Figures 2, 3, 5A and 5E of Rao show a phase generator (142, 144, 146, 150) that generates a plurality of phases shown in figure 5E wherein, the first phase is (CKL3) and the second phase is (CKL2), for driving a charge pump circuit having high capacitive load (col. 8, lines 33-56). Therefore, it would have been obvious to one of ordinary skill in the art to replace the phase generator of Liu with a phase generator taught by RAO for being able to drive a charge pump circuit having high capacitive load. The third phase is (CKL1). The limitation “a display device” has not been given patentable weights because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Response to Arguments

In the Remarks, applicant argued that the specification is sufficient in detail to enable one skilled in the art to employ logic circuits in the phase generator (9) to generate four different phases P1 to P4 timed by a clock signal of line 18” is not persuasive. Reading from the specification, it appears that the phase generator is the core of the invention. However, it is not understood from the specification as to how the logic circuits **arranged to have an adaptive control** over the phase of a plurality of signals. Therefore, the specification has failed to provide an enable disclosure as to one skilled in the art to make and/or use of the invention. Thus, the rejection under 112, first paragraph remains.

Conclusion

Any inquiry concerning this communication or earlier communications from the

Application/Control Number:
10/023,107
Art Unit: 2816

Page 6

examiner should be directed to Examiner Hiep Nguyen whose telephone number is (703) 305-0127. The examiner can normally be reached on Monday to Friday from 7:30 A.M.to 4:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached on (703) 308-4876. The fax phone number for this Group is (703) 308-6251.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Hiep Nguyen



TUANT. LAM
PRIMARY EXAMINER